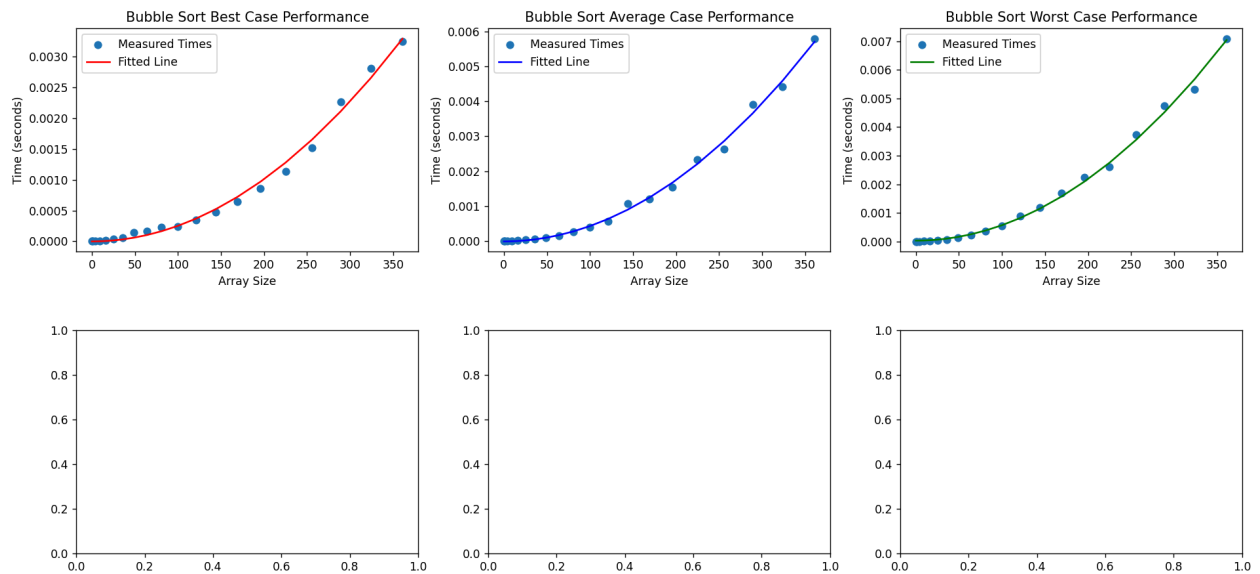
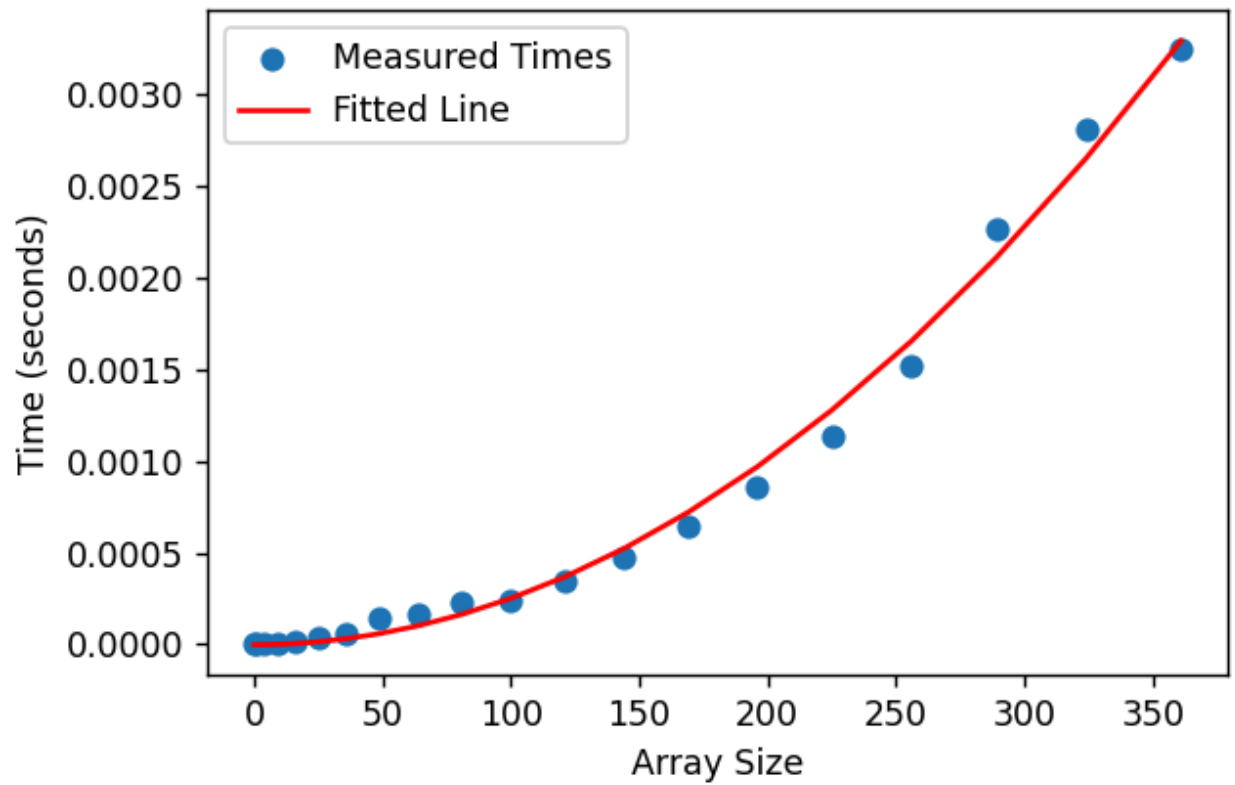


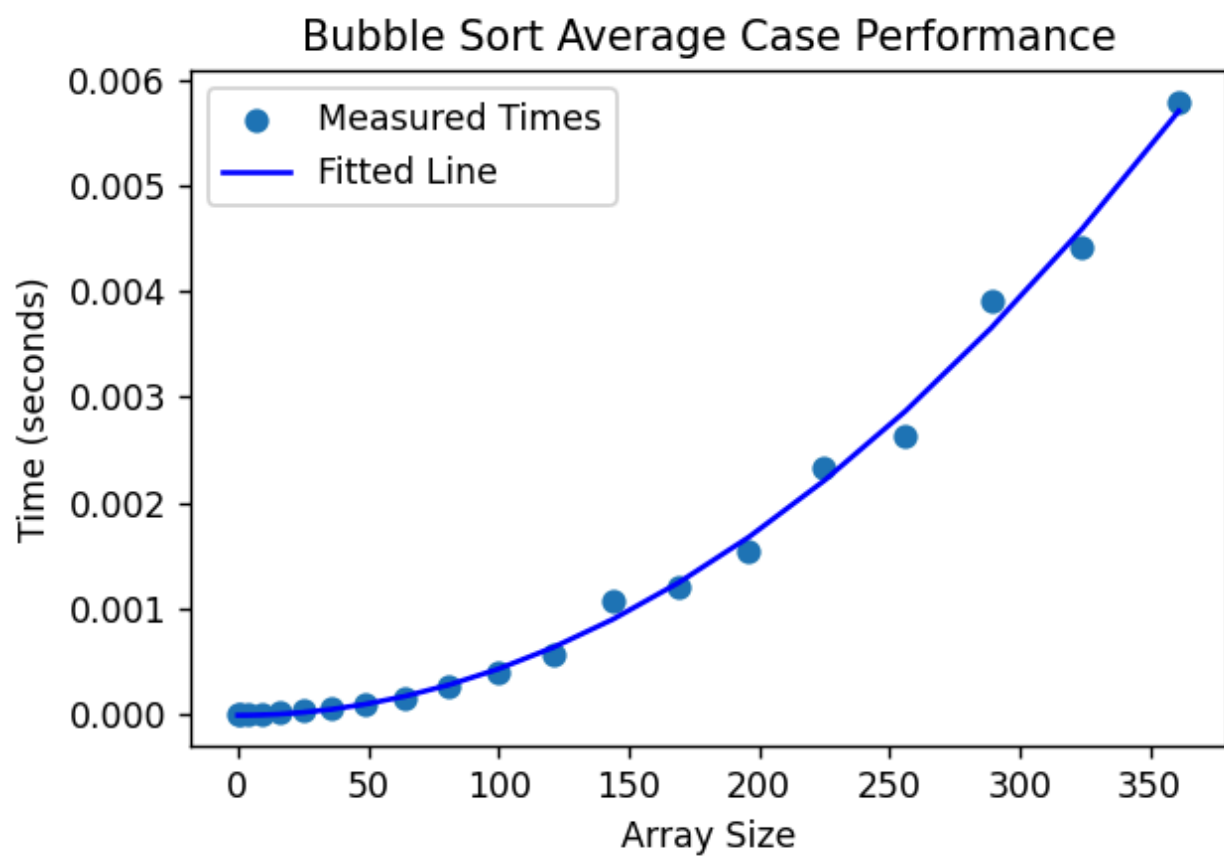
Ex2

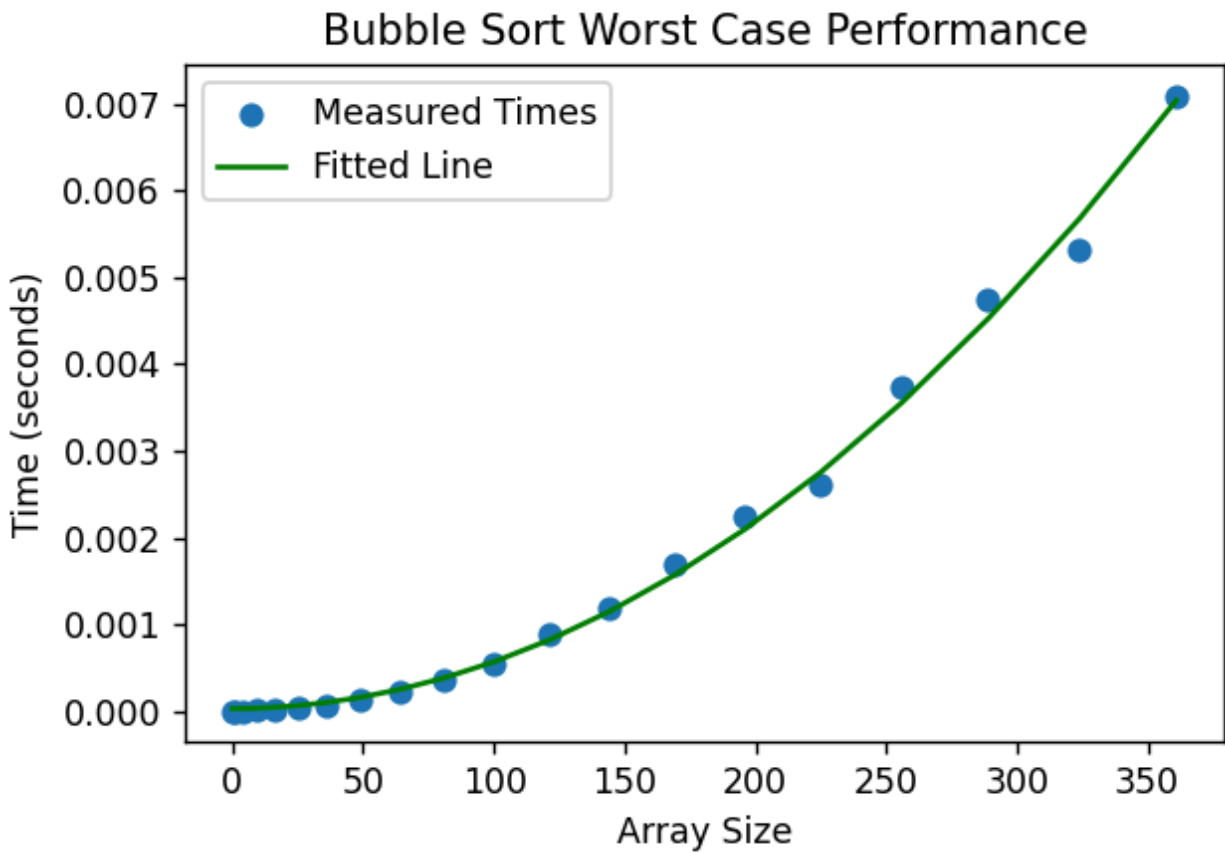
3) Included in the diagrams below are the plots for the Best, Average and Worst Case scenarios for Bubble Sort. As seen from the 'Time (seconds)' axis, the Best case performed best as the worst time (at an array size of 350) was around 0.0035 seconds. This performance was closely followed by the average case which had at worst time of 0.006 seconds. Lastly, the worst performing case was the worst case with a time of 0.007 seconds.



Bubble Sort Best Case Performance







4) By visually observing the three graphs above, I choose an array size of 150 as a threshold for a 'small array size'. This choice comes from the fact that in all three graphs, at array sizes greater than 150, the graph quickly shoots up rapidly in following the n^2 graph. This causes an exponential growth in the amount of time required to sort the array.